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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,831	04/16/2004	Mark A. Kimmet	29495.00	3508
22465	7590	09/14/2005		
PITTS AND BRITTIAN P C P O BOX 51295 KNOXVILLE, TN 37950-1295				
			EXAMINER CARTER, WILLIAM JOSEPH	
			ART UNIT 2875	PAPER NUMBER

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/826,831	<b>Applicant(s)</b> KIMMET ET AL.	
	<b>Examiner</b> William J. Carter	<b>Art Unit</b> 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 is/are allowed.
- 6) ☒ Claim(s) 11, 14, 15, 24, 26, 28 and 32 is/are rejected.
- 7) ☒ Claim(s) 12, 13, 16-23, 25, 27, 29-31, and 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>04/16/04</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

The drawings are objected to under 37 CFR 1.83(a) because they fail to show item 10 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Claim 27 states "a step of applying an opaque border," but the "step" has not been previously disclosed.

Claim 28 states "a step of applying an adhesive," but the "step" has not been previously disclosed.

Claim 29 states "the step of applying a dropping resistor," but the "step" has not been previously disclosed.

Claim 32 states "a step of applying a power connector," but the "step" has not been previously disclosed.

Claim 33 states "a step of applying a battery holder," but the "step" has not been previously disclosed.

### ***Claim Objections***

Claims 22 and 27-33 are objected to because of the following informalities:

Claim 22 requires a period following "substrate."

Each of these claims refers back to "the apparatus of Claim 26," which is a methods claim and therefore should refer back to "the methods of Claim 26."

Appropriate correction is required.

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***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Richardson (6,052,224).

With respect to claim 24, Richardson teaches an apparatus for providing backlight illumination of an image comprising: a mean for forming an illumination circuit on a substrate (Fig. 11); a mean for supplying power (382, 384) to the illumination circuit; and a means for backlighting the image (Fig. 11).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 14, 15, 26, 28, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson (6,052,224) in view of Bowman (6,491,412).

With respect to claim 11, Richardson teaches an apparatus for providing backlight illumination of an image comprising: a substrate (24) having a front

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surface and a rear surface (Fig. 11), a plurality of conductive traces (386, 388) adhered to the rear surface, and at least one light emitting device (378) adhered to the rear surface (by 380) each of the at least one light emitting device in electrical connection with at least a pair of the plurality of conductive traces (column 12, lines 58-63), the plurality of conductive traces and the at least one light emitting device forming an illumination circuit (column 12, line 64-column 13, line1). As for claims 14 and 15, Richardson teaches a means for supplying power (382, 384) to the illumination circuit and a power connector (382, 384) adhered to the substrate, the power connector in electrical connection with a pair of the plurality of conductive traces (Fig. 11). Richardson does not teach the plurality of conductive traces formed of a conductive polymer thick film ink. Bowman teaches the use of conductive polymer thick film ink to form a plurality of conductive traces ((column 5, lines 63-67). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to use to the teaching of the traces of Bowman to create the light assembly of Lang, in order to create conductive traces with an easy assembly (Detailed Description paragraph 18).

As for claims 26, 28, and 32, all of the elements of these claims are disclosed above, in regards to claims 11, 14, and 15, and thus the methods are implicitly implied.

#### ***Allowable Subject Matter***

Claims 1-10 are allowed. In regard to claim 1 the prior art does not teach or suggest an apparatus for providing backlight illumination of an image

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comprising: an opaque border adhered to the rear surface, the opaque border having an inside aperture whereby a selected portion of the image is illuminated and at least one light emitting device adhered to the rear surface, each of the at least one light emitting device in electrical connection with at least a pair of the plurality of conductive traces, the plurality of conductive traces the said at least one light emitting device forming an illumination circuit in combination with the remaining claim elements as set forth in claims 1-10.

Claims 12, 13, 16-23, 25, 27, 29-31, and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In regard to claim 12, the prior art does not teach or suggest the apparatus further including a dropping resistor adhered to the opaque border, wherein the at least one light emitting device includes at least one light emitting diode, the dropping resistor in electrical connection with at least a pair of the plurality of conductive traces, and the plurality of conductive traces, the at least one light emitting device, and the dropping resistor forming the illumination circuit.

As for claim 13, the prior art does not teach or suggest the apparatus further including an opaque border adhered to the rear surface, the substrate is formed of glass, and the opaque border is positioned between the substrate and the plurality of conductive traces.

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As for claim 16, the prior art does not teach or suggest the apparatus further including a battery holder adhered to the substrate, the battery holder in electrical connection with a pair of the plurality of conductive traces.

As for claim 17, the prior art does not teach or suggest the apparatus further including a sheet proximal the front surface of the substrate, the sheet including the image to be illuminated.

As for claim 18, the prior art does not teach or suggest the apparatus further including a back board, the back board positioned proximal to and separated from the rear surface of the substrate.

As for claim 19, the prior art does not teach or suggest the apparatus further including a plurality of spacers separating the back board from the rear surface.

As for claim 20, the prior art does not teach or suggest the apparatus further including a reflector on a surface of the back board proximal the rear surface.

As for claim 21, the prior art does not teach or suggest the apparatus further including a light barrier between the back board and the rear surface.

As for claim 22, the prior art does not teach or suggest the apparatus further including a sheet proximal the front surface of the substrate, the sheet having the image to be illuminated and a back board having a reflector, the back board positioned proximal to and separated from the rear surface of the substrate.



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As for claim 23, the prior art does not teach or suggest the apparatus further including a frame in which the substrate, the sheet, and the back board are secured, the frame having an opening for viewing the image.

As for claim 25, the prior art does not teach or suggest the apparatus further including a means for blocking a front view of the illumination circuit.

As for claim 27, the prior art does not teach or suggest the apparatus further including, before the step of applying the conductive polymer thick film ink, a step for applying an opaque border to the surface of the substrate.

As for claim 29, the prior art does not teach or suggest the apparatus further including the step of applying a dropping resistor to the substrate, the dropping resistor positioned such that each of a pair of terminals is in contact with the conductive polymer thick film ink.

As for claim 30, the prior art does not teach or suggest the apparatus wherein the dropping resistor is a surface mount resistor.

As for claim 31, the prior art does not teach or suggest the apparatus wherein the dropping resistor is a resistive polymer thick film ink applied to a selected region of the glass substrate with the resistive polymer thick film ink bridging a gap between two of the plurality of conductive traces.

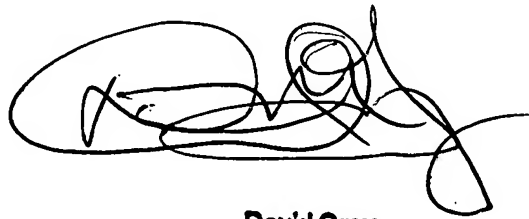
As for claim 33, the prior art does not teach or suggest the apparatus further including a step of applying a battery holder to the glass substrate, the battery holder having a pair of terminals in contact with the conductive polymer thick film ink.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Carter whose telephone number is (571)272-0959. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee S. Luebke can be reached on (571)272-2009. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'David Gray', with a large, stylized flourish extending from the end of the signature.

**David Gray**  
Primary Examiner

wjc  
08/29/05